

WA

10523489c.trn

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1626GMS

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page for STN Seminar Schedule - N. America  
NEWS 2 MAY 01 New CAS web site launched  
NEWS 3 MAY 08 CA/CAPplus Indian patent publication number format defined  
NEWS 4 MAY 14 RDISCLOSURE on STN Easy enhanced with new search and display fields  
NEWS 5 MAY 21 BIOSIS reloaded and enhanced with archival data  
NEWS 6 MAY 21 TOXCENTER enhanced with BIOSIS reload  
NEWS 7 MAY 21 CA/CAPplus enhanced with additional kind codes for German patents  
NEWS 8 MAY 22 CA/CAPplus enhanced with IPC reclassification in Japanese patents  
NEWS 9 JUN 27 CA/CAPplus enhanced with pre-1967 CAS Registry Numbers  
NEWS 10 JUN 29 STN Viewer now available  
NEWS 11 JUN 29 STN Express, Version 8.2, now available  
NEWS 12 JUL 02 LEMBASE coverage updated  
NEWS 13 JUL 02 LMEDLINE coverage updated  
NEWS 14 JUL 02 SCISEARCH enhanced with complete author names  
NEWS 15 JUL 02 CHEMCATS accession numbers revised  
NEWS 16 JUL 02 CA/CAPplus enhanced with utility model patents from China  
NEWS 17 JUL 16 CAPplus enhanced with French and German abstracts  
NEWS 18 JUL 18 CA/CAPplus patent coverage enhanced  
NEWS 19 JUL 26 USPATFULL/USPAT2 enhanced with IPC reclassification  
NEWS 20 JUL 30 USGENE now available on STN  
NEWS 21 AUG 06 CAS REGISTRY enhanced with new experimental property tags  
NEWS 22 AUG 06 BEILSTEIN updated with new compounds  
NEWS 23 AUG 06 FSTA enhanced with new thesaurus edition  
NEWS 24 AUG 13 CA/CAPplus enhanced with additional kind codes for granted patents

NEWS EXPRESS 29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,  
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

NEWS HOURS STN Operating Hours Plus Help Desk Availability

NEWS LOGIN Welcome Banner and News Items

NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 11:33:59 ON 14 AUG 2007

=>

Uploading

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE

Do you want to switch to the Registry File?

Choice (Y/n):

Switching to the Registry File...

Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FILE REGISTRY

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 11:34:12 ON 14 AUG 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 13 AUG 2007 HIGHEST RN 944501-68-2

DICTIONARY FILE UPDATES: 13 AUG 2007 HIGHEST RN 944501-68-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

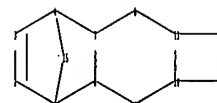
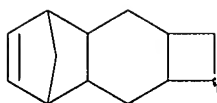
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10523489c.str



ring nodes :  
 1 2 3 4 5 6 7 8 9 10 11 12 15  
 ring bonds :  
 1-2 1-6 1-15 2-3 3-4 4-7 4-15 5-6 5-10 6-7 7-8 8-11 9-10 9-12 10-11  
 11-12  
 exact/norm bonds :  
 1-2 1-6 1-15 2-3 3-4 4-7 4-15 5-6 5-10 6-7 7-8 8-11 9-10 9-12 10-11  
 11-12  
 isolated ring systems :  
 containing 1 :

G1:O,N,NH

Match level :

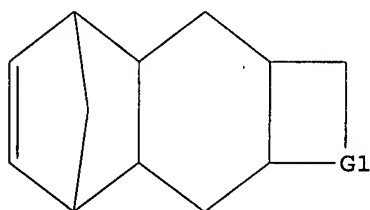
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
 11:Atom 12:Atom 15:Atom

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1 STR



G1 O,N,NH

Structure attributes must be viewed using STN Express query preparation.

10523489c.trn

=> s l1

SAMPLE SEARCH INITIATED 11:34:25 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 31 TO ITERATE

100.0% PROCESSED 31 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 286 TO 954  
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 sss full

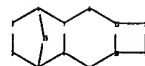
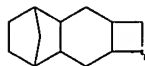
FULL SEARCH INITIATED 11:34:38 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 630 TO ITERATE

100.0% PROCESSED 630 ITERATIONS ~~0 ANSWERS~~  
SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

=>

Uploading C:\Program Files\Stnexp\Queries\10523489d.str



ring nodes :  
1 2 3 4 5 6 7 8 9 10 11 12 15  
ring bonds :  
1-2 1-6 1-15 2-3 3-4 4-7 4-15 5-6 5-10 6-7 7-8 8-11 9-10 9-12 10-11  
11-12  
exact/norm bonds :  
1-2 1-6 1-15 2-3 3-4 4-7 4-15 5-6 5-10 6-7 7-8 8-11 9-10 9-12 10-11  
11-12  
isolated ring systems :  
containing 1 :

G1:O,N,NH

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 15:Atom

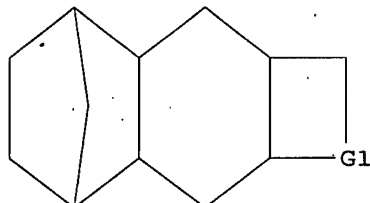
10523489c.trn

L4 STRUCTURE UPLOADED

=> d l4

L4 HAS NO ANSWERS

L4 STR



G1 O,N,NH

Structure attributes must be viewed using STN Express query preparation.

=> s l4

SAMPLE SEARCH INITIATED 11:36:40 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 31 TO ITERATE

100.0% PROCESSED 31 ITERATIONS

SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 286 TO 954

PROJECTED ANSWERS: 0 TO 0

L5 0 SEA SSS SAM L4

=> s l4 sss full

FULL SEARCH INITIATED 11:36:49 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 630 TO ITERATE

100.0% PROCESSED 630 ITERATIONS

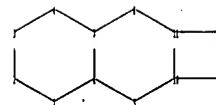
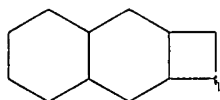
SEARCH TIME: 00.00.01

0 ANSWERS

L6 0 SEA SSS FUL L4

=>

Uploading C:\Program Files\Stnexp\Queries\10523489e.str



ring nodes :  
 1 2 3 4 5 6 7 8 9 10 11 12  
 ring bonds :  
 1-2 1-6 2-3 3-4 4-7 5-6 5-10 6-7 7-8 8-11 9-10 9-12 10-11 11-12  
 exact/norm bonds :  
 1-2 1-6 2-3 3-4 4-7 5-6 5-10 6-7 7-8 8-11 9-10 9-12 10-11 11-12  
 isolated ring systems :  
 containing 1 :

G1:O,N,NH

Match level :

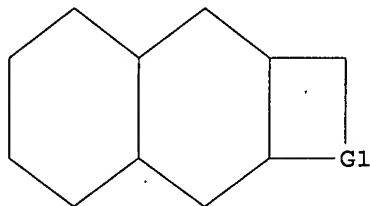
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
 11:Atom 12:Atom

L7 STRUCTURE UPLOADED

=> d 17

L7 HAS NO ANSWERS

L7 STR



G1 O,N,NH

Structure attributes must be viewed using STN Express query preparation.

=> s 17

10523489c.trn

SAMPLE SEARCH INITIATED 11:38:14 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 132 TO ITERATE

100.0% PROCESSED 132 ITERATIONS 2 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 1951 TO 3329  
PROJECTED ANSWERS: 2 TO 124

L8 2 SEA SSS SAM L7

=> s l7 sss full  
FULL SEARCH INITIATED 11:38:20 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 2659 TO ITERATE

100.0% PROCESSED 2659 ITERATIONS 16 ANSWERS  
SEARCH TIME: 00.00.01

L9 16 SEA SSS FUL L7

=> FIL HCAPLUS  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
ENTRY SESSION  
FULL ESTIMATED COST 518.10 518.31

FILE 'HCAPLUS' ENTERED AT 11:38:26 ON 14 AUG 2007  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
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FILE COVERS 1907 - 14 Aug 2007 VOL 147 ISS 8  
FILE LAST UPDATED: 13 Aug 2007 (20070813/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l9  
L10 14 L9

=> s l9 and photoresists  
14 L9  
36523 PHOTORESISTS  
L11 0 L9 AND PHOTORESISTS

=> s l10 and py<=2002

10523489c.trn

22880597 PY<=2002

L12 12 L10 AND PY<=2002

=> s- photoresists

L13 36523 PHOTORESISTS

=> s l13 and ethylenically unsaturated

11479 ETHYLENICALLY

57168 UNSATURATED

1 UNSATURATEDS

57169 UNSATURATED

(UNSATURATED OR UNSATURATEDS)

229362 UNSATD

13 UNSATDS

229365 UNSATD

(UNSATD OR UNSATDS)

244297 UNSATURATED

(UNSATURATED OR UNSATD)

11312 ETHYLENICALLY UNSATURATED

(ETHYLENICALLY(W) UNSATURATED)

L14 508 L13 AND ETHYLENICALLY UNSATURATED

=> s l14 and 4-membered heterocyclic rings

5648609 4

71252 MEMBERED

106120 HETEROCYCLIC

1593 HETEROCYCLICS

106896 HETEROCYCLIC

(HETEROCYCLIC OR HETEROCYCLICS)

135971 RINGS

5 4-MEMBERED HETEROCYCLIC RINGS

(4 (W) MEMBERED (W) HETEROCYCLIC (W) RINGS)

L15 1 L14 AND 4-MEMBERED HETEROCYCLIC RINGS

=> s l14 and 4-membered heterocyclic ring

5648609 4

71252 MEMBERED

106120 HETEROCYCLIC

1593 HETEROCYCLICS

106896 HETEROCYCLIC

(HETEROCYCLIC OR HETEROCYCLICS)

517262 RING

135971 RINGS

599825 RING

(RING OR RINGS)

9 4-MEMBERED HETEROCYCLIC RING

(4 (W) MEMBERED (W) HETEROCYCLIC (W) RING)

L16 1 L14 AND 4-MEMBERED HETEROCYCLIC RING

=> s l14 and 4-membered heterocyclic

5648609 4

71252 MEMBERED

106120 HETEROCYCLIC

1593 HETEROCYCLICS

106896 HETEROCYCLIC

(HETEROCYCLIC OR HETEROCYCLICS)

19 4-MEMBERED HETEROCYCLIC

(4 (W) MEMBERED (W) HETEROCYCLIC)

L17 1 L14 AND 4-MEMBERED HETEROCYCLIC



10523489c.trn

=> s l14 and heterocyclic  
106120 HETEROCYCLIC  
1593 HETEROCYCLICS  
106896 HETEROCYCLIC  
(HETEROCYCLIC OR HETEROCYCLICS)

L18 35 L14 AND HETEROCYCLIC

=> s l18 and fluorine  
109342 FLUORINE  
568 FLUORINES  
109658 FLUORINE  
(FLUORINE OR FLUORINES).

L19 1 L18 AND FLUORINE

=> s l18 and py<=2002  
22880597 PY<=2002  
L20 30 L18 AND PY<=2002

=> s l20 and p/dt  
5821838 P/DT  
L21 30 L20 AND P/DT

=> s l21 and us/pc  
1706139 US/PC  
L22 ~~10 L21 AND US/PC~~

=> d his

(FILE 'HOME' ENTERED AT 11:33:59 ON 14 AUG 2007)

FILE 'REGISTRY' ENTERED AT 11:34:12 ON 14 AUG 2007

L1 STRUCTURE UPLOADED  
L2 0 S L1  
L3 0 S L1 SSS FULL  
L4 STRUCTURE UPLOADED  
L5 0 S L4  
L6 0 S L4 SSS FULL  
L7 STRUCTURE UPLOADED  
L8 2 S L7  
L9 16 S L7 SSS FULL

FILE 'HCAPLUS' ENTERED AT 11:38:26 ON 14 AUG 2007

L10 14 S L9  
L11 0 S L9 AND PHOTORESISTS  
L12 12 S L10 AND PY<=2002  
L13 36523 S PHOTORESISTS  
L14 508 S L13 AND ETHYLENICALLY UNSATURATED  
L15 1 S L14 AND 4-MEMBERED HETEROCYCLIC RINGS  
L16 1 S L14 AND 4-MEMBERED HETEROCYCLIC RING  
L17 1 S L14 AND 4-MEMBERED HETEROCYCLIC  
L18 35 S L14 AND HETEROCYCLIC  
L19 1 S L18 AND FLUORINE  
L20 30 S L18 AND PY<=2002  
L21 30 S L20 AND P/DT  
L22 10 S L21 AND US/PC

=> d l10 ibib abs hitstr tot

L10 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2007:262409 HCAPLUS

DOCUMENT NUMBER: 146:461685  
 TITLE: Molecular and Electronic Structure of 1,8-Peribridged Naphthalenes  
 AUTHOR(S): Novak, Igor; Harrison, Leslie J.; Li, Wei; Kovac, Branka  
 CORPORATE SOURCE: Charles Sturt University, Orange, NSW, 2800, Australia  
 SOURCE: Journal of Physical Chemistry A (2007), 111(13), 2619-2624  
 CODEN: JPCAFH; ISSN: 1089-5639  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The crystal and mol. structure of 1,8-thianaphthalene has been determined and compared with other single-atom peri-bridged naphthalenes (SAPN). The measured CSC angle is 73.06°, which is the smallest bridging angle yet recorded for a SAPN derivative. The ab initio calcns. using G3(MP2)//B3LYP method were performed for peri-bridged naphthalenes in order to determine how the strain of the four-membered ring is influenced by the type of bridge linking 1,8 positions. The electronic structure of 1,8-thia- and 1,8-sulfonenaphthalenes has been studied by UPS. We have tried to identify and distinguish the strain effect on the electronic structure of the naphthalene moiety.

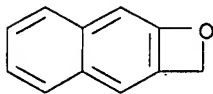
IT 278-00-2, 2H-Naphth[2,3-b]oxete 935512-98-4

RL: PRP (Properties)

(ring strain energy; mol. and electronic structure of 1,8-peri-bridged naphthalenes)

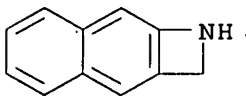
RN 278-00-2 HCAPLUS

CN 2H-Naphth[2,3-b]oxete (CA INDEX NAME)



RN 935512-98-4 HCAPLUS

CN Naphth[2,3-b]azete, 1,2-dihydro- (CA INDEX NAME)



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:874998 HCAPLUS

DOCUMENT NUMBER: 146:461870

TITLE: Product class 12: aryl- and hetarylketenes

AUTHOR(S): Tidwell, T. T.

CORPORATE SOURCE: Department of Chemistry, University of Toronto, Toronto, ON, M5S 3H6, Can.

SOURCE: Science of Synthesis (2006), 23, 391-492

CODEN: SSCYJ9

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review of methods to prepare aryl- and hetarylketenes and their applications to organic synthesis.

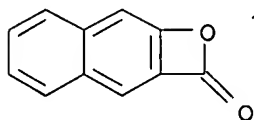
IT 86163-66-8P, 2H-Naphth[2,3-b]oxet-2-one

RL: SPN (Synthetic preparation); PREP (Preparation)

(review preparation of aryl- and hetarylketenes with applications to organic synthesis)

RN 86163-66-8 HCAPLUS

CN 2H-Naphth[2,3-b]oxet-2-one (CA INDEX NAME)



REFERENCE COUNT: 330 THERE ARE 330 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:855866 HCAPLUS

DOCUMENT NUMBER: 139:214345

TITLE: Product class 2: 1H- and 2H-indazoles

AUTHOR(S): Stadlbauer, W.

CORPORATE SOURCE: Institut fur Organische Chemie, Karl-Franzens-Universitat, Graz, A-8010, Austria

SOURCE: Science of Synthesis (2002), 12, 227-324

CODEN: SSCYJ9

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review of methods for preparation of 1H- and 2H-indazoles. Covered reactions include ring-closure reactions, ring transformations, and substituent modifications.

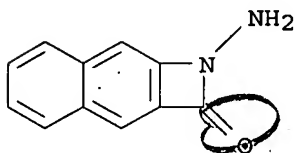
IT 41225-83-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of 1H- and 2H-indazoles via ring-closure reactions, ring transformations, and substituent modifications)

RN 41225-83-6 HCAPLUS

CN Naphth[2,3-b]azet-2(1H)-one, 1-amino- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 664 THERE ARE 664 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN

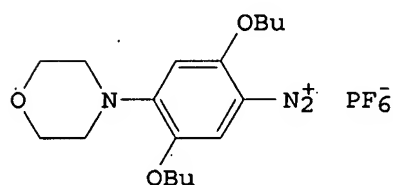
ACCESSION NUMBER: 1989:145051 HCAPLUS

DOCUMENT NUMBER: 110:145051

TITLE: Heat-developable photosensitive diazo recording sheet

for bar-code adhesive labels  
 INVENTOR(S): Nakamura, Kotaro; Kawashima, Yoshiro  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Brit. UK Pat. Appl., 26 pp.  
 CODEN: BAXXDU  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2203852	A	19881026	GB 1988-9460	19880421
GB 2203852	B	19900516		
JP 63265240	A	19881101	JP 1987-98525	19870423
PRIORITY APPLN. INFO.: GI			JP 1987-98525	A 19870423



AB A heat-developable photosensitive recording sheet contains a polymer support,  $\geq 1$  heat-developable photosensitive layer containing a diazo compound and a coupler, a tacky layer, and a release paper. The printing method comprises imagewise exposure to light and development by heat. An adhesive printed label is obtained by peeling off the release paper. The printed material is free from surface strains, excellent in damage resistance, and simple to produce. Thus, a photosensitive coating composition contained a dispersion of 2-hydroxy-3-naphthoic acid anhydride and triphenylguanidine and hydroxyquinone monobenzyl ether and microencapsulated diazo compound I. The material produced damage-resistant bar-code labels.

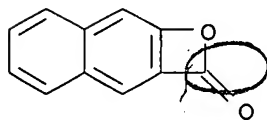
IT 86163-66-8, 2H-Naphth[2,3-b]oxet-2-one

RL: USES (Uses)

(heat-developable diazo printing material containing, for bar code labels)

RN 86163-66-8 HCAPLUS

CN 2H-Naphth[2,3-b]oxet-2-one (CA INDEX NAME)



L10 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1988:21622 HCAPLUS

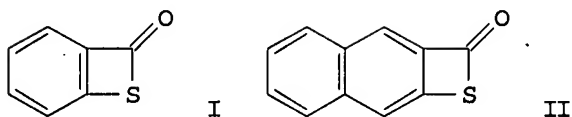
DOCUMENT NUMBER: 108:21622

TITLE: Benzothiet-2-ones: synthesis, reactions, and comparison with benzoxet-2-ones and benzazetin-2-ones

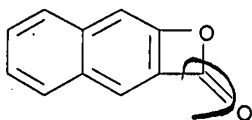
AUTHOR(S): Wentrup, Curt; Bender, Harald; Gross, Gerhard

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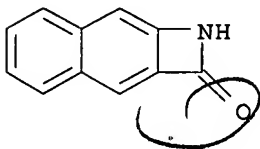
CORPORATE SOURCE: Dep. Chem., Univ. Queensland, St. Lucia, 4067, Australia  
SOURCE: Journal of Organic Chemistry (1987), 52(17), 3838-47  
CODEN: JOCEAH; ISSN: 0022-3263  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 108:21622  
GI



AB A number of title compds., e.g., I and II, were prepared or generated and then trapped via oligomerization, addition reaction with MeOH, or cycloaddn. reaction with DCC.  
IT 86163-66-8P  
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (formation and addition reaction of, with methanol)  
RN 86163-66-8 HCAPLUS  
CN 2H-Naphth[2,3-b]oxet-2-one (CA INDEX NAME)



IT 86163-67-9P  
RL: PREP (Preparation) (formation and addition reaction with methanol)  
RN 86163-67-9 HCAPLUS  
CN Naphth[2,3-b]azet-2(1H)-one (9CI) (CA INDEX NAME)



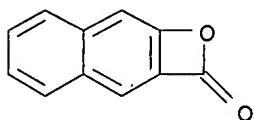
L10 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1983:470489 HCAPLUS  
DOCUMENT NUMBER: 99:70489  
TITLE: Thietones, oxetones and azetones  
AUTHOR(S): Wentrup, Curt; Gross, Gerhard  
CORPORATE SOURCE: Fachbereich Chem., Univ. Marburg, Marburg, D-3550, Fed. Rep. Ger.  
SOURCE: Angewandte Chemie (1983), 95(7), 552  
CODEN: ANCEAD; ISSN: 0044-8249  
DOCUMENT TYPE: Journal  
LANGUAGE: German

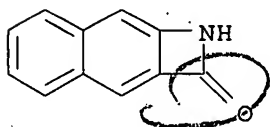
AB Naphtho[2,3-b]thiet-2-one (I) was prepared in 25% yield by flash vacuum pyrolysis of 3-mercapto-2-naphthoic acid. Methanolysis of I gave Me

3-mercapto-2-naphthoate and pyrolysis gave 2-thiocarbonyl-2H-indene. Naphtho[2,1-b]thiet-2-one was obtained quant. by pyrolysis of 1,2-dihydronaphtho[2,1-b]thiophene-1,2-dione. Naphtho[2,3-b]oxet-2-one was prepared by pyrolysis of 3-acetoxy-2-naphthoic acid or 3-hydroxy-2-naphthoyl chloride. Naphth[2,3-b]azet-2(1H)-one, azeto[3,2-b]pyridin-2(1H)-one, and azeto[2,3-c]pyridin-2(1H)-one were obtained from the corresponding aminocarboxylic acids.

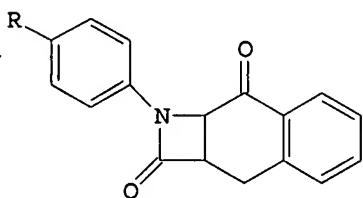
IT 86163-66-8P 86163-67-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 86163-66-8 HCAPLUS  
 CN 2H-Naphth[2,3-b]oxet-2-one (CA INDEX NAME)



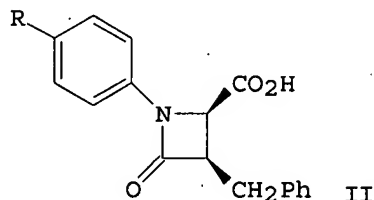
RN 86163-67-9 HCAPLUS  
 CN Naphth[2,3-b]azet-2(1H)-one (9CI) (CA INDEX NAME)



L10 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1977:484740 HCAPLUS  
 DOCUMENT NUMBER: 87:84740  
 TITLE: Synthesis of 2-aryl-6,7-benzo-2-azabicyclo[4.2.0]octan-3,8-dione: a new heterocyclic system  
 AUTHOR(S): Chatterjee, B. G.; Sahu, D. P.  
 CORPORATE SOURCE: Dep. Chem., Indian Inst. Technol., Kharagpur, India  
 SOURCE: Tetrahedron Letters (1977), (13), 1129-30  
 CODEN: TELEAY; ISSN: 0040-4039  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 87:84740  
 GI



I

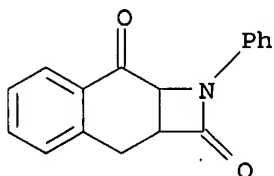


II

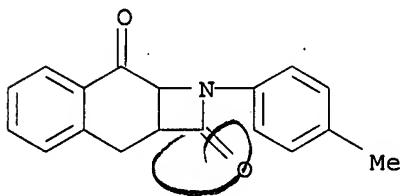
AB The azetidinones I (R = H, Me) were prepared from 4-RC<sub>6</sub>H<sub>4</sub>NHCH(CO<sub>2</sub>Et)<sub>2</sub> in 6 steps via the  $\beta$ -lactam acids II.

10523489c.trn

IT 63755-28-2P 63755-29-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 63755-28-2 HCAPLUS  
CN Naphth[2,3-b]azete-2,8-dione, 1,2a,3,8a-tetrahydro-1-phenyl- (9CI) (CA  
INDEX NAME)



RN 63755-29-3 HCAPLUS  
CN Naphth[2,3-b]azete-2,8-dione, 1,2a,3,8a-tetrahydro-1-(4-methylphenyl)-  
(9CI) (CA INDEX NAME)



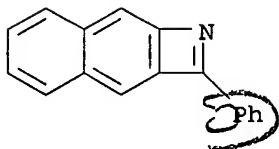
L10 ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1975:155988 HCAPLUS  
DOCUMENT NUMBER: 82:155988  
TITLE: Benzazets (1-azabenzocyclabutenes)  
AUTHOR(S): Adger, Brian M.; Rees, Charles W.; Storr, Richard C.  
CORPORATE SOURCE: Robert Robinson Lab., Univ. Liverpool, Liverpool, UK  
SOURCE: Journal of the Chemical Society, Perkin Transactions  
1: Organic and Bio-Organic Chemistry (1972-1999)  
(1975), (1), 45-52  
CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 82:155988

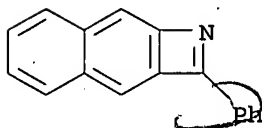
GI For diagram(s), see printed CA Issue.

AB Pyrolysis of 4-phenyl-1,2,3-triazine at 420° gave 2-phenylbenzazete  
(I) which dimerized above -40°. I underwent cycloaddn. with  
conjugated dienes. E.g., I with 1,3-diphenylisobenzofuran gave II.  
Adducts of I with tetraphenylcyclopentadienone and dipyridyltetrazine  
spontaneously lose CO and N to give benzazocine III and benzotriazocine IV  
resp.; I with H+ and PhNHNH2 gave 2-H2NC6H4COPh and its phenylhydrazone  
resp. 6-Chloro-4-phenyl- and 4-(p-methoxyphenyl)-1,2,3-benzotriazine and  
4-phenylnaphtho[2,3-d][1,2,3]triazine on pyrolysis gave the corresponding  
benzazetes. Pyrolysis of 4-phenyl-1,2,3-benzotriazine 3-oxide gave  
3-phenyl-2,1-benzisoxazole and acridone via 2-phenylbenzazete N-oxide.

IT 39779-03-8P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and reaction of)  
RN 39779-03-8 HCAPLUS  
CN Naphth[2,3-b]azete, 2-phenyl- (9CI) (CA INDEX NAME)

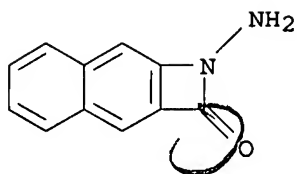


IT 54853-42-8P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 54853-42-8 HCAPLUS  
 CN Naphth[2,3-b]azete, 2-phenyl-, dimer (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 39779-03-8  
 CMF C17 H11 N

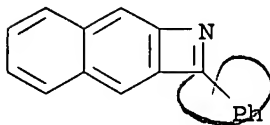


L10 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1973:147697 HCAPLUS  
 DOCUMENT NUMBER: 78:147697  
 TITLE: Formation of fused azetinones by photolysis and  
 pyrolysis of triazinones. N-Aminonaphth[2,3-b]azet-  
 2(1H)-one and N-1-adamantylbenzazet-2(1H)-one  
 AUTHOR(S): Bashir, Naz; Gilchrist, Thomas L.  
 CORPORATE SOURCE: Chem. Dep., Univ. Leicester, Leicester, UK  
 SOURCE: Journal of the Chemical Society, Perkin Transactions  
 1: Organic and Bio-Organic Chemistry (1972-1999)  
 (1973), No. 8, 868-72  
 CODEN: JCPRB4; ISSN: 0300-922X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI For diagram(s), see printed CA Issue.  
 AB Irradiation of 3-aminonaphtho[2,3-d]-v-triazin-4(3H)-one gave N-amino-  
 naphth[2,3-b]azet-2(1H)-one, which on heating or with AcOH gave  
 benz[f]-indazol-3(2H)-one. Irradiation or pyrolysis of 3-amino-1,2,3-  
 benzotriazin-4(3H)-one (I, R = NH<sub>2</sub>) gave 3-indazolinone. Pyrolysis of I  
 (R = 1-adamantyl) gave N-(1-adamantyl)benzazet-2(1H) one (II, R =  
 1-adamantyl), adamantyl isocyanate, and biphenylene.  
 IT 41225-83-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 41225-83-6 HCAPLUS  
 CN Naphth[2,3-b]azet-2(1H)-one, 1-amino- (9CI) (CA INDEX NAME)





L10 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1973:84138 HCAPLUS  
 DOCUMENT NUMBER: 78:84138  
 TITLE: 2-phenylbenzazete, an azacyclobutadiene  
 AUTHOR(S): Adger, B. M.; Keating, M.; Rees, C. W.; Storr, R. C.  
 CORPORATE SOURCE: Robert Robinson Lab., Univ. Liverp., Liverpool, UK  
 SOURCE: Journal of the Chemical Society, Chemical  
 Communications (1973), (1), 19-20  
 CODEN: JCCCAT; ISSN: 0022-4936  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI For diagram(s), see printed CA Issue.  
 AB Vapor-phase flash pyrolysis of 4-phenyl-1,2,3-benzotriazine (I) at 0.03  
 torr >500° gave 40% biphenylene, but at 420-50° gave a mixture  
 which was collected at -80° and contained .apprx.60% of the red  
 title compound (II), .apprx.20% 9-phenylacridine (III) and .apprx.5% I. On  
 warming to room temperature, II gave 50% of a dimer which was converted  
 thermally or with refluxing EtOH-HCl to III. Monomeric II was intercepted  
 when nucleophiles or conjugated dienes were injected onto the cold  
 pyrolyzate at or below -40°. Thus, addition of dilute aqueous H2SO4 in THF  
 gave 50% o-H2NC6H4Bz, and cycloaddn. of 1,3-diphenylisobenzofuran gave 55%  
 of the adduct (IV). Pyrolysis of 4-phenyl-1,2,3-naphtho[2,3-d]triazine at  
 470° and 0.03 torr gave the more stable 2-phenylnaphth[2,3-b]azete.  
 IT 39779-03-8P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 39779-03-8 HCAPLUS  
 CN Naphth[2,3-b]azete, 2-phenyl- (9CI) (CA INDEX NAME)



L10 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1970:78136 HCAPLUS  
 DOCUMENT NUMBER: 72:78136  
 TITLE: Skeletal rearrangement by electron bombardment. III.  
 Benzotriazinones and 1,3-diphenyltriazenes  
 AUTHOR(S): Wuensche, Christian; Ege, G.; Beisiegel, E.; Pasedach,  
 F.  
 CORPORATE SOURCE: Org.-Chem. Inst., Univ. Heidelberg, Heidelberg, Fed.  
 Rep. Ger.  
 SOURCE: Tetrahedron (1969), 25(24), 5869-77  
 CODEN: TETRAB; ISSN: 0040-4020  
 DOCUMENT TYPE: Journal

LANGUAGE: German

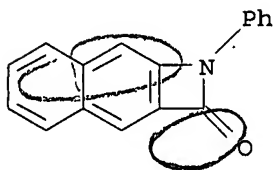
GI For diagram(s), see printed CA Issue.

AB Appearance potential measurements excluded a 4-membered ring structure of the (P-N2)+-ion in 3-phenylnaphthotriazinone. The fragmentation of some 3-phenyl-benzotriazinones, such as I, and 1,3-diphenyltriazenes was studied by high resolution measurements and 15N-labeling technique. ortho-Substituted methylbenzoates eliminate methanol in 6- and 7-membered ring transition states, but not in 8-membered transition states.

IT 19275-01-5  
RL: PRP (Properties)  
(mass spectrum of)

RN 19275-01-5 HCAPLUS

CN Naphth[2,3-b]azet-2(1H)-one, 1-phenyl- (8CI) (CA INDEX NAME)



L10 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1969:11650 HCAPLUS

DOCUMENT NUMBER: 70:11650

TITLE: Reaction of benzoyl and trichloroacetyl isocyanates with p-benzoquinone and  $\alpha$ -naphthoquinone

AUTHOR(S): Arbuzov, B. A.; Zobova, N. N.; Babasina, R. N.

CORPORATE SOURCE: Kazan. Gos. Univ. im. Ul'yanova-Lenina, Kazan, USSR

SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1968), (9), 2137-9  
CODEN: IASKA6; ISSN: 0002-3353

DOCUMENT TYPE: Journal

LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 70:11650

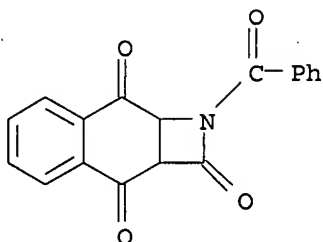
GI For diagram(s), see printed CA Issue.

AB Heating 4.84 g. BzNCO with 3.55 g. p-benzoquinone in Et<sub>2</sub>O 7 hrs. at 70-80° gave on cooling 45.6% I, m. 194-5°. Similarly Cl<sub>3</sub>CCONCO gave 43% Ia, m. 160-1°. BzNCO and 1,4-naphthoquinone gave 40.5% II, m. 226.5°. I treated with 30% H<sub>2</sub>O<sub>2</sub> in Me<sub>2</sub>CO-aqueous Na<sub>2</sub>CO<sub>3</sub> gave 83% epoxide, m. 216°. Hydrolysis of I in 6N NaOH gave 5-amino-2-cyclohexene-1,4-dion-6-oic acid, m. 173-5°. Similarly II gave 2-amino-1,4-dioxotetrahydronaphthalene-3-carboxylic acid, m. 198-200°. Heating II with alc. KOH 45 min. at 45% gave  $\alpha$ -naphthoquinone-2-carboxylic acid, m. 178°. Ia heated briefly with HCl in aqueous Me<sub>2</sub>CO then kept at room temperature gave 5-hydroxy-2-cyclohexene-1,4-dion-6-oic acid, m. 139-40%. Thus BzNCO reacts with the quinones in 1,2-cycloaddn. mode while Cl<sub>3</sub>CCONCO reacts by a form of Diels-Alder reaction.

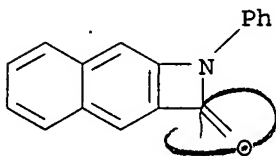
IT 20962-80-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 20962-80-5 HCAPLUS

CN Naphth[2,3-b]azete-2,3,8(1H)-trione, 1-benzoyl-2a,8a-dihydro- (8CI) (CA INDEX NAME)



L10 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1968:402762 HCAPLUS  
 DOCUMENT NUMBER: 69:2762  
 TITLE: N-Phenylnaphtho[2,3-b]azetinone  
 AUTHOR(S): Ege, G.; Beisiegel, E.  
 CORPORATE SOURCE: Univ. Heidelberg, Heidelberg, Fed. Rep. Ger.  
 SOURCE: Angewandte Chemie, International Edition in English  
 (1968), 7(4), 303-4  
 CODEN: ACIEAY; ISSN: 0570-0833  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI For diagram(s), see printed CA Issue.  
 AB A mixture of the title ketone (I) and a small amount of benzo[d]acridone (II) is prepared by the irradiation of 3-phenyl-3,4-dihydronaphtho[2,3-d]-1,2,3-triazin-4-one (III). I is treated with MeOH and morpholine to give 3,2-PhNHC10H6CO2Me and 3-(phenylamino)-2-naphthoic acid morphilide.  
 IT 19275-01-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 19275-01-5 HCAPLUS  
 CN Naphth[2,3-b]azet-2(1H)-one, 1-phenyl- (8CI) (CA INDEX NAME)



L10 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1943:23133 HCAPLUS  
 DOCUMENT NUMBER: 37:23133  
 ORIGINAL REFERENCE NO.: 37:3744c-f  
 TITLE: Action of thionyl chloride on 2,3-hydroxynaphthoic acid  
 AUTHOR(S): Airan, J. W.; Shah, S. V.  
 SOURCE: J. Indian Chem. Soc. (1942), 19, 333-4  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 GI For diagram(s), see printed CA Issue.  
 AB cf. C. A. 37, 632.7. Kostanecki (Ber. 25B, 1642 (1892)) distilled 2,3-hydroxynaphthoic acid (I) with Ac2O and obtained  $\gamma$ -dinaphthoxanthone. By the action of SOCl<sub>2</sub> on I, A. and S. obtained a compound (II) which they consider to be a lactone. SOCl<sub>2</sub> (30 cc.) was added

in 5-cc. portions during 20 min. to 5 g. I (heated in an oil bath at 110°); the dry residue was extracted with CHCl<sub>3</sub> and ether was added to the extract to give a yellow solid (II), which, after purification with ether and CCl<sub>4</sub>, m. 240° (yield 50%).

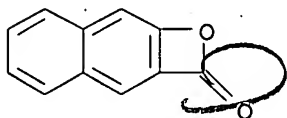
IT 86163-66-8P, 2-Naphthoic acid, 3-hydroxy-, lactone

RL: PREP (Preparation)

(preparation of)

RN 86163-66-8 HCAPLUS

CN 2H-Naphth[2,3-b]oxet-2-one (CA INDEX NAME)



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L15 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:143193 HCAPLUS

DOCUMENT NUMBER: 140:181994

TITLE: Fluorinated monomers, fluorinated polymers having polycyclic groups with fused 4-membered heterocyclic rings, useful as photoresists, and processes for microlithography

INVENTOR(S): Feiring, Andrew E.; Schadt, Frank L., III; Petrov, Viacheslav Alexandrovich; Smart, Bruce Edmund; Farnham, William Brown

PATENT ASSIGNEE(S): E. I. Du Pont De Nemours and Company, USA

SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004014960	A2	20040219	WO 2003-US25021	20030808
WO 2004014960	A3	20050224		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003259728	A1	20040225	AU 2003-259728	20030808
EP 1539690	A2	20050615	EP 2003-785132	20030808
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1675179	A	20050928	CN 2003-819298	20030808
JP 2005535709	T	20051124	JP 2004-527970	20030808

US 2006167284 A1 20060727 US 2005-523489 20050203  
PRIORITY APPLN. INFO.: US 2002-402261P P 20020809  
WO 2003-US25021 W 20030808

OTHER SOURCE(S): MARPAT 140:181994

AB The present invention provides novel fluorine-containing copolymers which comprise at least one fluorinated olefin, at least one polycyclic ethylenically unsatd. monomer with a fused 4-membered heterocyclic ring and, optionally, other components. The copolymers are useful for photoimaging compns. and, in particular, photoresist compns. (pos.-working and/or neg.-working) for imaging in the production of semiconductor devices. The copolymers are especially useful in photoresist compns. having high UV transparency (particularly at short wavelengths, e.g., 157 nm) which are useful as base resins in resists and potentially in many other applications.

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L16 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:143193 HCAPLUS

DOCUMENT NUMBER: 140:181994

TITLE: Fluorinated monomers, fluorinated polymers having polycyclic groups with fused 4-membered heterocyclic rings, useful as photoresists, and processes for microlithography

INVENTOR(S): Feiring, Andrew E.; Schadt, Frank L., III; Petrov, Viacheslav Alexandrovich; Smart, Bruce Edmund; Earnham, William Brown

PATENT ASSIGNEE(S): E. I. Du Pont De Nemours and Company, USA

SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004014960	A2	20040219	WO 2003-US25021	<del>20030808</del>
WO 2004014960	A3	20050224		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003259728	A1	20040225	AU 2003-259728	20030808
EP 1539690	A2	20050615	EP 2003-785132	20030808
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1675179	A	20050928	CN 2003-819298	20030808
JP 2005535709	T	20051124	JP 2004-527970	20030808
US 2006167284	A1	20060727	US 2005-523489	20050203
PRIORITY APPLN. INFO.:			US 2002-402261P	P 20020809
			WO 2003-US25021	W 20030808

OTHER SOURCE(S): MARPAT 140:181994

AB The present invention provides novel fluorine-containing copolymers which comprise at least one fluorinated olefin, at least one polycyclic ethylenically unsatd. monomer with a fused 4-membered heterocyclic ring and, optionally, other components. The copolymers are useful for photoimaging compns. and, in particular, photoresist compns. (pos.-working and/or neg.-working) for imaging in the production of semiconductor devices. The copolymers are especially

useful in photoresist compns. having high UV transparency (particularly at short wavelengths, e.g., 157 nm) which are useful as base resins in resists and potentially in many other applications.

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L17 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:143193 HCAPLUS

DOCUMENT NUMBER: 140:181994

TITLE: Fluorinated monomers, fluorinated polymers having polycyclic groups with fused 4-membered heterocyclic rings, useful as photoresists, and processes for microlithography

INVENTOR(S): Feiring, Andrew E.; Schadt, Frank L., III; Petrov, Viatcheslav Alexandrovich; Smart, Bruce Edmund; Farnham, William Brown

PATENT ASSIGNEE(S): E. I. Du Pont De Nemours and Company, USA

SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004014960	A2	20040219	WO 2003-US25021	20030808
WO 2004014960	A3	20050224		
W:		AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW		
RW:		GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
AU 2003259728	A1	20040225	AU 2003-259728	20030808
EP 1539690	A2	20050615	EP 2003-785132	20030808
R:		AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK		
CN 1675179	A	20050928	CN 2003-819298	20030808
JP 2005535709	T	20051124	JP 2004-527970	20030808
US 2006167284	A1	20060727	US 2005-523489	20050203
PRIORITY APPLN. INFO.:			US 2002-402261P	P 20020809
			WO 2003-US25021	W 20030808

OTHER SOURCE(S): MARPAT 140:181994

AB The present invention provides novel fluorine-containing copolymers which

comprise at least one fluorinated olefin, at least one polycyclic ethylenically unsatd. monomer with a fused 4-membered heterocyclic ring and, optionally, other components. The copolymers are useful for photoimaging compns. and, in particular, photoresist compns. (pos.-working and/or neg.-working) for imaging in the production of semiconductor devices. The copolymers are especially useful in photoresist compns. having high UV transparency (particularly at short wavelengths, e.g., 157 nm) which are useful as base resins in resists and potentially in many other applications.

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L19 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:143193 HCAPLUS

DOCUMENT NUMBER: 140:181994

TITLE: Fluorinated monomers, fluorinated polymers having polycyclic groups with fused 4-membered heterocyclic rings, useful as photoresists, and processes for microlithography

INVENTOR(S): Feiring, Andrew E.; Schadt, Frank L., III; Petrov, Viacheslav Alexandrovich; Smart, Bruce Edmund; Farnham, William Brown

PATENT ASSIGNEE(S): E. I. Du Pont De Nemours and Company, USA

SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004014960	A2	20040219	WO 2003-US25021	20030808
WO 2004014960	A3	20050224		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003259728	A1	20040225	AU 2003-259728	20030808
EP 1539690	A2	20050615	EP 2003-785132	20030808
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1675179	A	20050928	CN 2003-819298	20030808
JP 2005535709	T	20051124	JP 2004-527970	20030808
US 2006167284	A1	20060727	US 2005-523489	20050203
PRIORITY APPLN. INFO.:			US 2002-402261P	P 20020809
			WO 2003-US25021	W 20030808

OTHER SOURCE(S): MARPAT 140:181994

AB The present invention provides novel fluorine-containing copolymers which comprise at least one fluorinated olefin, at least one polycyclic ethylenically unsatd. monomer with a fused 4-membered

heterocyclic ring and, optionally, other components. The copolymers are useful for photoimaging compns. and, in particular, photoresist compns. (pos.-working and/or neg.-working) for imaging in the production of semiconductor devices. The copolymers are especially useful in photoresist compns. having high UV transparency (particularly at short wavelengths, e.g., 157 nm) which are useful as base resins in resists and potentially in many other applications.

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L22 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:644332 HCAPLUS

DOCUMENT NUMBER: 111:244332

TITLE: High-sensitivity spectrally sensitized photopolymerizable compositions

INVENTOR(S): Yamaguchi, Jun; Okazaki, Masaki; Hioki, Takanori

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.

CODEN: JKXXAF

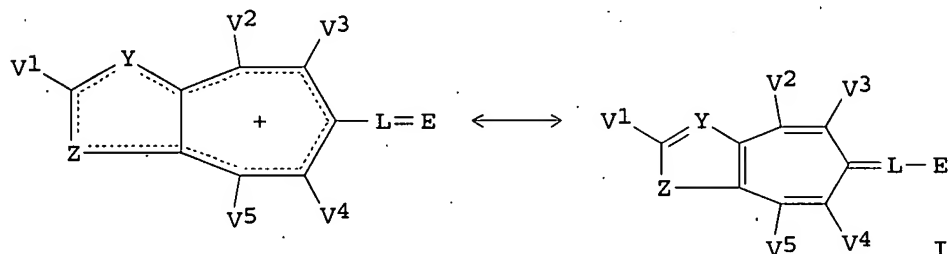
DOCUMENT TYPE: Patent.

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01090202	A	19890406	JP 1987-247479	19870930 <--
US 4902604	A	19900220	US 1988-251419	19880930 <--
PRIORITY APPLN. INFO.: GI			JP 1987-247479	A 19870930



AB The title compns. contain polymerizable compound containing ethylenically unsatd. bond and organic cationic colored compound organic B compound anion salt R1R2R3R4N- D+ [R1-4 = (un)substituted alkyl, aryl, aralkyl, alkaryl, alkenyl, alkynyl, alicyclic, ketenocyclic, or ≥2 of R1-4 = ring member], wherein D+ is cationic dye I [E = auxiliary chromophore; L = methylene; V1-5 = H, halogen, (un)substituted alkyl, aryl, acyloxy, alkoxy, carbamoyl, sulfamoyl, CN, OH, NH2, acylamino, alkoxy, alkylthio, alkylsulfonyl, aryl; vicinal pairs of V1-5 may be condensed ring member; Y, Z = C(V) (V is as defined for V1-5), chalcogen atom (e.g., S, O, Se, Te), N(R11) [R11 = H, (un)substituted alkyl, aryl, heterocyclic group], excluding Y = Z = C(V)].

L22 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:487312 HCAPLUS

DOCUMENT NUMBER: 111:87312



TITLE: Novel polymethine dyes for imaging compositions  
 INVENTOR(S): Logan, Margaret Elizabeth  
 PATENT ASSIGNEE(S): Eastman Kodak Co., USA  
 SOURCE: Eur. Pat. Appl., 20 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

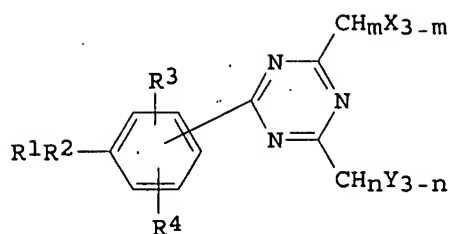
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 297873	A2	19890104	EP 1988-305959	19880630 <--
EP 297873	A3	19910703		
R: BE, DE, FR, GB, NL				
US 4855213	A	19890808	US 1988-183876	19880420 <--
CA 1311482	C	19921215	CA 1988-568759	19880607 <--
JP 01098670	A	19890417	JP 1988-161114	19880630 <--
PRIORITY APPLN. INFO.:			US 1987-67843	A 19870630
			US 1988-183876	A 19880420

AB Polymethine dyes having the general formula  $E = (L_1L_2)_n = CRN + .tplbond.C - [R = CN, SO_2R_1, COR_1, CO_2R_1; E = \text{atoms completing an aromatic heterocyclic nucleus comprised of an azolinylidene, azinylidene, pyranlydene, thiopyranlydene, selenapyranlydene, tellurapyranlydene, dithiolydene ring; } R_1 = \text{(substituted) alkyl, alkenyl, aryl, alkaryl, alkynyl, aralkyl; } L_1, L_2 = \text{(substituted) methine group; } n = 0, 1, 2]$  are used as spectral sensitizers for UV-sensitive photoimaging compns., such as Ag halide photog. emulsions, photosensitive compns. containing photohardenable ethylenically unsatd. monomers, and neg.-working photoresist compns., for rendering the photoimaging compns. photosensitive to visible light.

L22 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1988:430191 HCAPLUS  
 DOCUMENT NUMBER: 109:30191  
 TITLE: Photosensitive composition containing aminophenylbis(halomethyl)-s-triazine derivative  
 INVENTOR(S): Kawamura, Kouichi; Abe, Yukio; Higashi, Tatsuji; Aotani, Yoshimasa  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Ger. Offen., 19 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3726001	A1	19880218	DE 1987-3726001	19870805 <--
DE 3726001	C2	19930218		
JP 63153542	A	19880625	JP 1986-227489	19860926 <--
JP 06093117	B	19941116		
US 4837128	A	19890606	US 1987-79137	19870729 <--
GB 2195121	A	19880330	GB 1987-18339	19870803 <--
GB 2195121	B	19891228		
PRIORITY APPLN. INFO.:			JP 1986-186238	A 19860808
			JP 1986-227489	A 19860926
OTHER SOURCE(S):			CASREACT 109:30191	
GI				



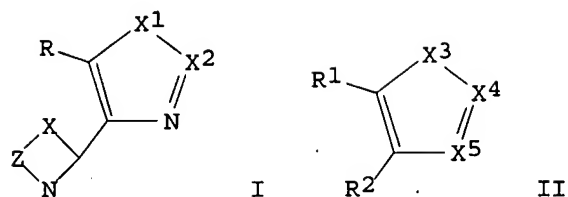
AB Photosensitive compns. having a high light sensitivity and good storage stability contain  $\geq 1$  compound with  $\geq 1$  ethylenically unsatd. double bond that can undergo addition polymerization and a photosensitive s-triazine derivative (I; R1,R2 = H, (un)substituted alkyl or aryl, R5CO, or R6R7NCO where R5 = (un)substituted alkyl or aryl and R6 = H or (un)substituted alkyl or aryl, and R1 and R2 together can form a heterocyclic ring; R3,R4 = H, halogen, alkyl, or alkoxy; X, Y = Cl or Br; m, n = 0, 1, or 2). The compns. are useful in preparing lithog. plates, transfer plates for printing, films for overhead projector, interprints, photomasks, and photoresists. Thus, a treated Al plate was overcoated with a composition containing a methacrylic acid-Me methacrylate copolymer, dipentaerythritol hexaacrylate, 4-[p-N,N'-bis(ethoxycarbonylmethyl)aminophenyl]-2,6-bis(trichloromethyl)-s-triazine (II), Et cellosolve, and CH2Cl2, dried, exposed through a step wedge in a vacuum printer, and developed. The exposure time was 15 s vs. 135 s for a control containing 2,4,6-tris(trichloromethyl)-s-triazine in place of II.

L22 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1987:587441 HCAPLUS  
 DOCUMENT NUMBER: 107:187441  
 TITLE: Photocurable composition  
 INVENTOR(S): Araki, Yasuhiko; Danjo, Shigeru; Shohi, Hajime  
 PATENT ASSIGNEE(S): Sekisui Chemical Co. Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 23 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 206030	A2	19861230	EP 1986-107640	19860605 <--
EP 206030	A3	19880107		
EP 206030	B1	19920102		
R: DE, FR, GB				
JP 61282835	A	19861213	JP 1985-124960	19850607 <--
JP 04062575	B	19921006		
JP 62096939	A	19870506	JP 1986-129511	19860604 <--
CA 1282272	C	19910402	CA 1986-510874	19860605 <--
US 4756994	A	19880712	US 1986-871759	19860606 <--
PRIORITY APPLN. INFO.:			JP 1985-124960	A 19850607
			JP 1985-124961	A 19850607

GI



AB Photoresist compns. having excellent adhesion to the surface of a substrate, good etching resistance, and being capable of forming high resolution images are composed of a resin having structural units derived from  $\geq 1$   $\alpha$ ,  $\beta$ -unsatd. ethylenically unsatd. monomer, a photopolymerizable monomer, a photopolymn. initiator, and a compound of the formula I or II (R = H, C1-4 alkyl, Ph, or C1-4 alkylaryl; R2, R3 = C1-10 alkyl, aryl, or aralkyl; X = O, S, or NR4 where R4 = H, OH, halogen, or C1-4 alkyl; X1 = O, S, or NH; X2 = N or CR5 where R5 = H or C1-4 alkyl; X3 = O, S, or NR5; X4 = N or CR6 where R6 = H, NH2, halogen, or C1-4 alkyl; Z = divalent aromatic hydrocarbon with bonds ortho to each other). A PET film was coated with a composition containing poly(Me methacrylate), pentaerythritol triacrylate, tetraethylene glycol diacrylate, 2-(4-thiazolyl)benzimidazole, benzophenone, dimethylaminobenzophenone, Et violet, p-methoxyphenol, and MeCOEt, dried, laminated with a Cu-clad circuit board, exposed through a neg., the PET film stripped, and the image developed. Upon plating, hardly any plating migration was observed

L22 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1985:532393 HCAPLUS  
 DOCUMENT NUMBER: 103:132393  
 TITLE: Photopolymerizable composition  
 INVENTOR(S): Nagasaka, Hideki  
 PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 22 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 138187	A2	19850424	EP 1984-112103	19841009 <--
EP 138187	A3	19850828		
EP 138187	B1	19890111		
R: DE, FR, GB, NL				
JP 60084304	A	19850513	JP 1983-192212	19831014 <--
JP 06029285	B	19940420		
AU 8434015	A	19850418	AU 1984-34015	19841008 <--
AU 563655	B2	19870716		
CA 1230004	A1	19871208	CA 1984-465081	19841010 <--
US 4594310	A	19860610	US 1984-660088	19841012 <--
			JP 1983-192212	A 19831014

PRIORITY APPLN. INFO.:  
 OTHER SOURCE(S): MARPAT 103:132393

GI For diagram(s), see printed CA Issue.

AB A photosensitive composition is described which is highly sensitive to UV and useful for imaging applications (lithog. printing plate fabrication, relief printing plate fabrication, photoresists for printed circuits, photocurable ink, paint, adhesive, etc.). The composition contains  $\geq 1$  ethylenically unsatd. double bond, and a photoinitiator comprising a compound of the formula I (R,R1 = alkyl; A = aromatic ring containing N; n = 1,2,3) and hexaarylbiimidazole. The initiator may addnl. contain a thiol II (Z = O,S,NH). Thus, an anodized Al support was coated with a solution containing a copolymer of Me methacrylate and methacrylic acid (obtained by hydrolyzing PMMA) 5, trimethylolpropane triacrylate 5 g, Victoria pure blue 30, p-methoxyphenol 30 mg, MeCOEt 90 g, II 2.5, 2,2'-bis-(o-chlorophenyl)-4,4',5,5'-tetrabiimidazole 5, 2-mercaptobenzothiazole 3%, dried at 80° for 5 min to obtain a dry film of 2  $\mu$ m, overcoated with poly(vinyl alc.) overcoat, dried, imaged, exposed, developed with an aqueous solution of 9 weight% Bu cellosolve and 1 weight% Na silicate. A relative sensitivity of the plate (measured after exposure with a high pressure Hg lamp which irradiates multiline of 366, 405 and 436 nm) was 8.0 compared to 1.0 for a composition using Michler's ketone and benzophenone as initiators.

L22 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1985:430327 HCAPLUS

DOCUMENT NUMBER: 103:30327

TITLE: Photopolymerizable composition

INVENTOR(S): Maeda, Minoru; Iwasaki, Masayuki; Shinozaki, Fumiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 52 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

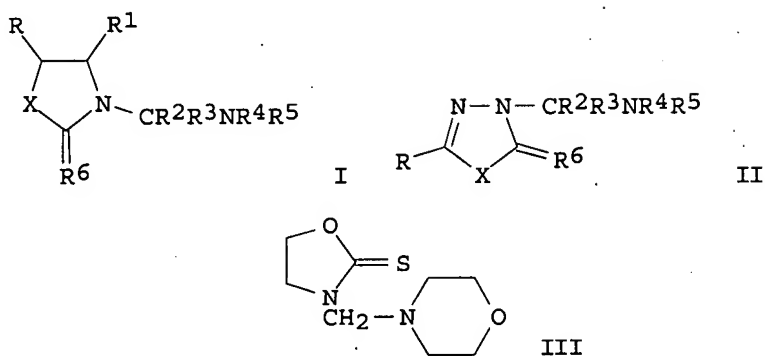
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 131824	A2	19850123	EP 1984-107585	19840629 <--
EP 131824	A3	19870429		
EP 131824	B1	19900509		
R: DE, GB, NL				
JP 60012543	A	19850122	JP 1983-119558	19830701 <--
JP 02042213	B	19900921		
JP 60012544	A	19850122	JP 1983-119559	19830701 <--
JP 03069102	B	19911030		
US 4543318	A	19850924	US 1984-626950	19840702 <--
PRIORITY APPLN. INFO.:			JP 1983-119558	A 19830701
			JP 1983-119559	A 19830701

OTHER SOURCE(S): MARPAT 103:30327

GI



AB A photopolymerizable composition is described having improved adhesion to metal surfaces, especially Cu. The composition suitable for formation of dry film photoresist for production of printed circuit boards and printing plates comprises an ethylenically unsatd. monomer, a thermoplastic resin binder, an initiator and  $\geq 1$  heterocyclic compound represented by I and II (R,R1 = H, alkyl, aryl, aralkyl, amino; R2,R3 = H, alkyl, aryl; R4,R5 = H, alkyl, aryl, aralkyl or R4,R5 together with adjacent N can form a pyrrolidine, piperidine, morpholine or N-substituted piperazine nucleus; R6 = O, S; X = O, S, CR2R3NR4R5; NR7 where R7 = H, alkyl, aryl). Thus, poly(ethylene terephthalate) film support was coated with a composition containing PMMA 15, tetraethylene glycol diacrylate 6.1, trimethylolpropane triacrylate 2.4, p-toluenesulfonamide 1.62, p-methoxyphenol 0.01, Malachite green 0.015, 4,4'-bis-(diethylamino)-benzophenone 0.04, phenyltribromomethylsulfone 0.37, MeCOEt 45 g, III 59.2 mg, dried at 100° for 2 min to give 50  $\mu$ m thick coating. The material was laminated to a Cu-clad laminate board at 120°, imagewise exposed for 10 s using high-pressure Hg lamp placed 50 cm away. The adhesion of the cured film to the Cu surface was excellent.

L22 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1982:143533 HCAPLUS

DOCUMENT NUMBER: 96:143533

DOCUMENT NUMBER: 10-11000  
TITLE: Thiaxanthonecarboxylic acids and derivatives useful in photopolymerization and photocrosslinking reaction

INVENTOR(S): Fischer, Walter; Kvita, Vratislav; Zweifel, Hans;  
Felder, Louis

PATENT ASSIGNEE(S): Ciba-Geigy A.-G. , Switz.

SOURCE: Fr. Demande, 58 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

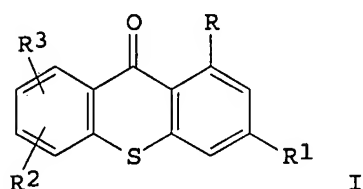
LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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FR 2482102	A1	19811113	FR 1981-8981	19810506 <--
FR 2482102	B1	19840113		
CH 643552	A5	19840615	CH 1980-3519	19800506 <--
JP 57002283	A	19820107	JP 1981-63527	19810428 <--
JP 02038594	B	19900831		
US 4385182	A	19830524	US 1981-258267	19810428 <--

DE 3117568	A1	19820616	DE 1981-3117568	19810504 <--
DE 3117568	C2	19891207		
CA 1166635	A1	19840501	CA 1981-376813	19810504 <--
GB 2075506	A	19811118	GB 1981-13651	19810505 <--
GB 2075506	B	19840208		
PRIORITY APPLN. INFO.:			CH 1980-3519	A 19800506
OTHER SOURCE(S):	MARPAT 96:143533			
GI				



AB Thirty-three thioxanthone derivs. I are prepared in which R is CO<sub>2</sub>H, CO<sub>2</sub>Bu, CONHBu, CN, or a similar group, R<sub>1</sub> is NO<sub>2</sub>, Cl, NH<sub>2</sub>, MeO, p-ClC<sub>6</sub>H<sub>4</sub>S, CMe<sub>2</sub>NO<sub>2</sub>, CH<sub>2</sub>CO<sub>2</sub>H, SO<sub>2</sub>Me, azido, 4,5-bis(methoxycarbonyl)-1,2,3-triazol-1-yl, CH(CN)CO<sub>2</sub>Me, SCH<sub>2</sub>CH<sub>2</sub>OH, or a similar group, R<sub>2</sub> is H or Cl, and R<sub>3</sub> is H, Me, MeO, or Cl. The I are useful as initiators for the photopolymerization and photo crosslinking of a 2-(dimethylmaleimido)ethyl methacrylate-Et acrylate copolymer [77090-37-0], mixts. of an acrylic resin and triacrylate monomers, and similar compns. as photoresists, coatings, etc. In some cases, mixts. of the I and an amine are used as photoinitiators. Thus, 12.7 g 3-(p-methylphenylthio)-5-nitrophthalic anhydride [81116-61-2], 16.1 g AlCl<sub>3</sub>, and 120 mL Cl<sub>2</sub>CHCHCl<sub>2</sub> were heated at 120°, cooled, evaporated, and treated with dilute HCl to prepare 7.37 g 1-carboxy-7-methyl-3-nitrothioxanthone [81116-25-8].

L22 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1982:77553 HCAPLUS  
Correction of: 1980:207141

DOCUMENT NUMBER: 96:77553  
Correction of: 92:207141

TITLE: Photoresist compositions

INVENTOR(S): Kondo, Shunichi; Matsufuji, Akihiro; Umehara, Akira

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 54152091	A	19791129	JP 1978-60718	19780522 <--
JP 62003843	B	19870127		
US 4290870	A	19810922	US 1979-40370	19790518 <--
PRIORITY APPLN. INFO.:			JP 1978-60718	A 19780522

GI For diagram(s), see printed CA Issue.

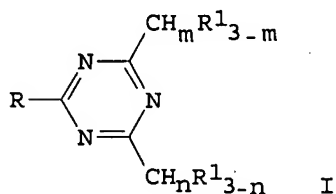
AB Photopolymerizable compns. contain (1) an addition-polymerizable compound containing ≥1 ethylenically unsatd. double bonds and (2) a photopolymerization initiator composition consisting of (a) 5-isoxazolone derivative I (R, R<sub>1</sub> = alkyl, alkylcarbonyl, alkoxycarbonyl, aryl,

arylcarbonyl, H) and (b) a compound selected from aromatic carbonyl compds. II, III, IV, V, VI (R<sub>2</sub>, R<sub>3</sub> = alkyl, substituted alkyl; R<sub>4</sub> = alkyl, aryl, aralkyl, substituted alkyl, alkoxy, aryloxy, 5- or 6-membered heterocyclic moiety containing O, N, or S atoms; R<sub>5</sub> = substituent with Hammett  $\sigma$  value of -0.9 to +0.7; R<sub>6</sub> = alkyl, aryl, substituted aryl, thienyl, furyl; X = group of atoms required to complete the N-containing heterocyclic ring; R<sub>7</sub> = alkyl, substituted alkyl, alkenyl), and 2-(2-thioxophenethylidene)-1-methylnaphtho[1,2-d][1,3]thiazoline. The photoresist compns. may also contain an appropriate binder resin. The photoresist compns. exhibit excellent sensitivity. Thus, a photosensitive resin composition consisting of pentaerythritol trimethacrylate 50, 3-phenyl-5-isoxazolone 3, benzanthrone 2, and chlorinated polyethylene had excellent sensitivity.

L22 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1980:485223 HCAPLUS  
 DOCUMENT NUMBER: 93:85223  
 TITLE: Radiation-sensitive copying composition  
 INVENTOR(S): Buhr, Gerhard  
 PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.  
 SOURCE: U.S., 9 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4189323	A	19800219	US 1978-899272	19780424 <--
DE 2718259	A1	19781102	DE 1977-2718259	19770425 <--
DE 2718259	C2	19821125		
PRIORITY APPLN. INFO.: GI			DE 1977-2718259	A 19770425



AB Radiation-sensitive copying compns. for use in preparing printing plates, color proofing films, resists, and the like are composed of an ethylenically unsatd. compound capable of undergoing a polymerization reaction initiated by free radicals or a compound capable of undergoing a cationic polymerization under the action of acid catalysts and an s-triazine of formula I (R = a substituted or unsubstituted bi- or polynuclear aromatic or heterocyclic aromatic group which can be partially hydrogenated and is linked by an unsatd. nuclear C atom; R<sub>1</sub> = Br or Cl; m, n = 0-3; and m + n = <5). Thus, an electrolytically roughened and anodized Al plate was whirl-coated with a coating solution containing trimethylolethane triacrylate 6.7, methacrylic acid-Me methacrylate copolymer (acid no 115) 6.5, I (R = 4-ethoxy-1-naphthyl; R<sub>1</sub> = Cl; m, n = 0) 0.12, ethylene glycol monoethyl ether 64.0, BuOAc 22.7, and 2,4-dinitro-6-chloro-2'-acetamido-5'-methoxy-4'-( $\beta$ -hydroxyethyl-

$\beta'$ -cyanoethyl)aminoazobenzene 0.3 parts by weight to give a 3-4 g/m<sup>2</sup> dry layer. After providing the plate with a 4  $\mu$ m thick protective layer of poly(vinyl alc.), the layer was exposed for 30 s at 110 cm to a 5 kW metal halide lamp under a line/screen original, and developed with 1.5% aqueous Na metasilicate to give a neg. of the original that when used in an offset press produced 200,000 copies of good quality.

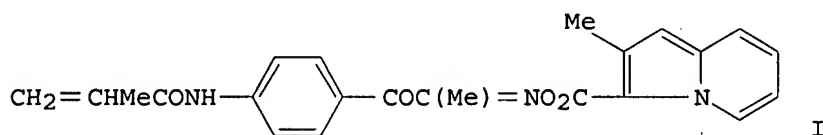
L22 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1979:430595 HCAPLUS  
 DOCUMENT NUMBER: 91:30595  
 TITLE: Etching agent diffusion type photoresists  
 PATENT ASSIGNEE(S): Agfa-Gevaert N. V., Belg.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 53149330	A	19781226	JP 1978-64837	19780529 <--
FR 2393345	A1	19781229	FR 1977-27557	19770909 <--
FR 2393345	B1	19800425		
US 4202697	A	19800513	US 1978-910333	19780530 <--
EP 82	A1	19781220	EP 1978-200022	19780601 <--
EP 82	B1	19820721		

R: BE, DE, GB

PRIORITY APPLN. INFO.: GB 1977-23203 A 19770601  
 GI



AB An etching resist layer which contains a radiation-sensitive polymer having an oxime ester group in the side chain, a hydrophilic binder, and no ethylenically unsatd. monomer which undergoes photopolymerization. is imagewise exposed to active radiation to form images which are more resistant to the permeation of the etching agent than the nonimage (nonirradiated) area. The preferred radiation-sensitive polymer is the homo- or copolymer of a compound of the general formula  $RCO_2N:CR_1COR_2$  [one of R, R<sub>2</sub> = an ethylenically unsatd. group; the other of R, R<sub>2</sub> is an aliphatic, aromatic, or heterocyclic moiety; R<sub>1</sub> = H, alkyl, substituted alkyl, aryl, or substituted aryl]. Thus, I-Me methacrylate copolymer (15:85 mol ratio;  $[\eta]_{THF} = 0.10$ ) 40 g was dissolved in a mixture of EtOAc 90, m-xylene 90, tricresyl phosphate 30, and ethylene glycol isophthalate-isopropylene glycol isophthalate copolymer (50:50) 20 g. The solution was then dispersed in a solution consisting of gelatin 60, H<sub>2</sub>O 340, and a 5% Na diisooctyl sulfosuccinate solution 40 g, and the dispersion was coated on a poly(ethylene terephthalate) support to give a photosensitive film. The film was imagewise exposed, then the photosensitive resin layer was transferred on to a Cu plate by pressing, and the plate was immersed in FeCl<sub>3</sub> solution for 15 min to etch the Cu plate.



10523489c.trn

=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

149.80

668.11

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-21.84

-21.84

STN INTERNATIONAL LOGOFF AT 11:46:59 ON 14 AUG 2007

10523489.trn

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1626GMS

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS 1 Web Page for STN Seminar Schedule - N. America  
NEWS 2 MAY 01 New CAS web site launched  
NEWS 3 MAY 08 CA/CAPplus Indian patent publication number format defined  
NEWS 4 MAY 14 RDISCLOSURE on STN Easy enhanced with new search and display fields  
NEWS 5 MAY 21 BIOSIS reloaded and enhanced with archival data  
NEWS 6 MAY 21 TOXCENTER enhanced with BIOSIS reload  
NEWS 7 MAY 21 CA/CAPplus enhanced with additional kind codes for German patents  
NEWS 8 MAY 22 CA/CAPplus enhanced with IPC reclassification in Japanese patents  
NEWS 9 JUN 27 CA/CAPplus enhanced with pre-1967 CAS Registry Numbers  
NEWS 10 JUN 29 STN Viewer now available  
NEWS 11 JUN 29 STN Express, Version 8.2, now available  
NEWS 12 JUL 02 LEMBASE coverage updated  
NEWS 13 JUL 02 LMEDLINE coverage updated  
NEWS 14 JUL 02 SCISEARCH enhanced with complete author names  
NEWS 15 JUL 02 CHEMCATS accession numbers revised  
NEWS 16 JUL 02 CA/CAPplus enhanced with utility model patents from China  
NEWS 17 JUL 16 CAPplus enhanced with French and German abstracts  
NEWS 18 JUL 18 CA/CAPplus patent coverage enhanced  
NEWS 19 JUL 26 USPATFULL/USPAT2 enhanced with IPC reclassification  
NEWS 20 JUL 30 USGENE now available on STN  
NEWS 21 AUG 06 CAS REGISTRY enhanced with new experimental property tags  
NEWS 22 AUG 06 BEILSTEIN updated with new compounds  
NEWS 23 AUG 06 FSTA enhanced with new thesaurus edition  
NEWS 24 AUG 13 CA/CAPplus enhanced with additional kind codes for granted patents

NEWS EXPRESS 29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,  
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

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FILE 'HOME' ENTERED AT 09:51:32 ON 14 AUG 2007

=>

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Do you want to switch to the Registry File?

Choice (Y/n):

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=> FILE REGISTRY

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 09:51:47 ON 14 AUG 2007

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DICTIONARY FILE UPDATES: 13 AUG 2007 HIGHEST RN 944501-68-2

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TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

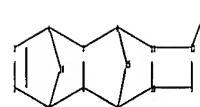
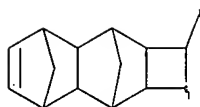
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10523489.str



```

chain nodes :
17
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 14 15
chain bonds :
12-17
ring bonds :
1-2 1-6 1-14 2-3 3-4 4-7 4-14 5-6 5-10 5-15 6-7 7-8 8-11 8-15 9-10
9-12 10-11 11-12
exact/norm bonds :
1-2 1-6 1-14 2-3 3-4 4-7 4-14 5-6 5-10 5-15 6-7 7-8 8-11 8-15 9-10
9-12 10-11 11-12 12-17
isolated ring systems :
containing 1 :

```

G1:O,N,NH

```

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 14:Atom 15:Atom 17:CLASS

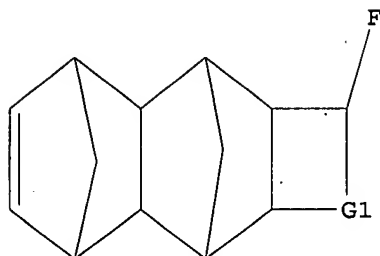
```

L1 STRUCTURE UPLOADED

=> D L1

L1 HAS NO ANSWERS

L1 STR



G1 O,N,NH

Structure attributes must be viewed using STN Express query preparation.

=&gt; S L1

SAMPLE SEARCH INITIATED 09:52:04 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
 BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 0 TO 0

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=&gt; S L1 SSS FULL

FULL SEARCH INITIATED 09:52:16 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 3 TO ITERATE

100.0% PROCESSED 3 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

=&gt; S l1 sss full

FULL SEARCH INITIATED 09:52:33 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 3 TO ITERATE

100.0% PROCESSED 3 ITERATIONS

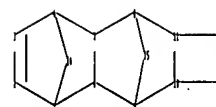
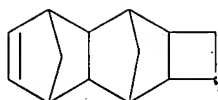
0 ANSWERS

SEARCH TIME: 00.00.01

L4 0 SEA SSS FUL L1

=&gt;

Uploading C:\Program Files\Stnexp\Queries\10523489a.str



ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 14 15

ring bonds :

1-2 1-6 1-14 2-3 3-4 4-7 4-14 5-6 5-10 5-15 6-7 7-8 8-11 8-15 9-10  
9-12 10-11 11-12

exact/norm bonds :

1-2 1-6 1-14 2-3 3-4 4-7 4-14 5-6 5-10 5-15 6-7 7-8 8-11 8-15 9-10  
9-12 10-11 11-12

isolated ring systems :

containing 1 :

G1:O,N,NH

Match level :

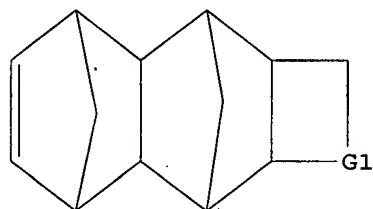
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 14:Atom 15:Atom

L5 STRUCTURE UPLOADED

=> d 15

L5 HAS NO ANSWERS

L5 STR



G1 O,N,NH

Structure attributes must be viewed using STN Express query preparation.

10523489.trn

=> s 15

SAMPLE SEARCH INITIATED 09:53:43 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 33 TO ITERATE

100.0% PROCESSED 33 ITERATIONS  
SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 316 TO 1004  
PROJECTED ANSWERS: 0 TO 0

L6 0 SEA SSS SAM L5

=> s 15 sss full

FULL SEARCH INITIATED 09:53:50 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 627 TO ITERATE

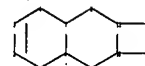
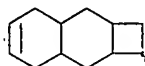
100.0% PROCESSED 627 ITERATIONS  
SEARCH TIME: 00.00.01

0 ANSWERS

L7 0 SEA SSS FUL L5

=>

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ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12

ring bonds :

1-2 1-6 2-3 3-4 4-7 5-6 5-10 6-7 7-8 8-11 9-10 9-12 10-11 11-12

exact/norm bonds :

1-2 1-6 2-3 3-4 4-7 5-6 5-10 6-7 7-8 8-11 9-10 9-12 10-11 11-12

isolated ring systems :

containing 1 :

G1:O,N,NH

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom

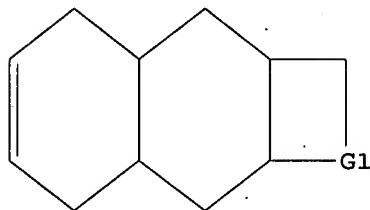
10523489.trn

L8 STRUCTURE UPLOADED

=> d 18

L8 HAS NO ANSWERS

L8 STR



G1 O,N,NH

Structure attributes must be viewed using STN Express query preparation.

=> s 18

SAMPLE SEARCH INITIATED 09:57:11 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 132 TO ITERATE

100.0% PROCESSED 132 ITERATIONS

2 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 1951 TO 3329

PROJECTED ANSWERS: 2 TO 124

L9 2 SEA SSS SAM L8

=> s 18 sss full

FULL SEARCH INITIATED 09:57:18 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 2659 TO ITERATE

100.0% PROCESSED 2659 ITERATIONS

SEARCH TIME: 00.00.01

14 ANSWERS

L10 14 SEA SSS FUL L8

=> FIL HCAPLUS

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

690.65

690.86

FILE 'HCAPLUS' ENTERED AT 09:57:23 ON 14 AUG 2007

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FILE LAST UPDATED: 13 Aug 2007 (20070813/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l10

L11 14 L10

=> d l11 ibib abs hitstr tot

L11 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:262409 HCAPLUS

DOCUMENT NUMBER: 146:461685

TITLE: Molecular and Electronic Structure of 1,8-Peribridged Naphthalenes

AUTHOR(S): Novak, Igor; Harrison, Leslie J.; Li, Wei; Kovac, Branka

CORPORATE SOURCE: Charles Sturt University, Orange, NSW, 2800, Australia

SOURCE: Journal of Physical Chemistry A (2007), 111(13), 2619-2624

CODEN: JPCAFH; ISSN: 1089-5639

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The crystal and mol. structure of 1,8-thianaphthalene has been determined and compared with other single-atom peri-bridged naphthalenes (SAPN). The measured CSC angle is 73.06°, which is the smallest bridging angle yet recorded for a SAPN derivative. The ab initio calcns. using G3(MP2)//B3LYP method were performed for peri-bridged naphthalenes in order to determine how the strain of the four-membered ring is influenced by the type of bridge linking 1,8 positions. The electronic structure of 1,8-thia- and 1,8-sulfonenaphthalenes has been studied by UPS. We have tried to identify and distinguish the strain effect on the electronic structure of the naphthalene moiety.

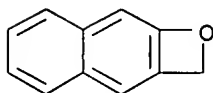
IT 278-00-2, 2H-Naphth[2,3-b]oxete 935512-98-4

RL: PRP (Properties)

(ring strain energy; mol. and electronic structure of 1,8-peri-bridged naphthalenes)

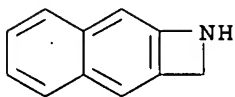
RN 278-00-2 HCAPLUS

CN 2H-Naphth[2,3-b]oxete (CA INDEX NAME)



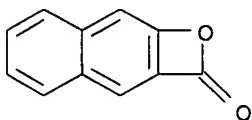
RN 935512-98-4 HCAPLUS

CN Naphth[2,3-b]azete, 1,2-dihydro- (CA INDEX NAME)



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2006:874998 HCAPLUS  
 DOCUMENT NUMBER: 146:461870  
 TITLE: Product class 12: aryl- and hetarylketenes  
 AUTHOR(S): Tidwell, T. T.  
 CORPORATE SOURCE: Department of Chemistry, University of Toronto,  
 Toronto, ON, M5S 3H6, Can.  
 SOURCE: Science of Synthesis (2006), 23, 391-492  
 CODEN: SSCYJ9  
 PUBLISHER: Georg Thieme Verlag  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: English  
 AB A review of methods to prepare aryl- and hetarylketenes and their  
 applications to organic synthesis.  
 IT 86163-66-8P, 2H-Naphth[2,3-b]oxet-2-one  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (review preparation of aryl- and hetarylketenes with applications to organic  
 synthesis)  
 RN 86163-66-8 HCAPLUS  
 CN 2H-Naphth[2,3-b]oxet-2-one (CA INDEX NAME)



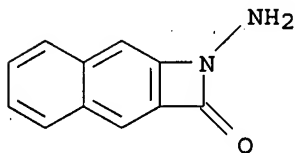
REFERENCE COUNT: 330 THERE ARE 330 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2002:855866 HCAPLUS  
 DOCUMENT NUMBER: 139:214345  
 TITLE: Product class 2: 1H- and 2H-indazoles  
 AUTHOR(S): Stadlbauer, W.  
 CORPORATE SOURCE: Institut fur Organische Chemie, Karl-Franzens-  
 Universitat, Graz, A-8010, Austria  
 SOURCE: Science of Synthesis (2002), 12, 227-324  
 CODEN: SSCYJ9  
 PUBLISHER: Georg Thieme Verlag  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: English  
 AB A review of methods for preparation of 1H- and 2H-indazoles. Covered reactions  
 include ring-closure reactions, ring transformations, and substituent  
 modifications.  
 IT 41225-83-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of 1H- and 2H-indazoles via ring-closure reactions, ring transformations, and substituent modifications)

RN 41225-83-6 HCAPLUS

CN Naphth[2,3-b]azet-2(1H)-one, 1-amino- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 664 THERE ARE 664 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L11 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:145051 HCAPLUS

DOCUMENT NUMBER: 110:145051

TITLE: Heat-developable photosensitive diazo recording sheet for bar-code adhesive labels

INVENTOR(S): Nakamura, Kotaro; Kawashima, Yoshiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Brit. UK Pat. Appl., 26 pp.

CODEN: BAXXDU

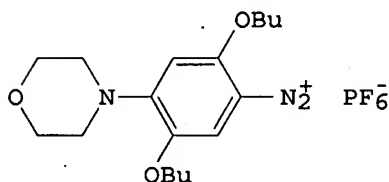
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2203852	A	19881026	GB 1988-9460	19880421
GB 2203852	B	19900516		
JP 63265240	A	19881101	JP 1987-98525	19870423
PRIORITY APPLN. INFO.: GI			JP 1987-98525	A 19870423



I

AB A heat-developable photosensitive recording sheet contains a polymer support,  $\geq 1$  heat-developable photosensitive layer containing a diazo compound and a coupler, a tacky layer, and a release paper. The printing method comprises imagewise exposure to light and development by heat. An adhesive printed label is obtained by peeling off the release paper. The printed material is free from surface strains, excellent in damage resistance, and simple to produce. Thus, a photosensitive coating composition contained a dispersion of 2-hydroxy-3-naphthoic acid anhydride and triphenylguanidine and hydroxyquinone monobenzyl ether and

microencapsulated diazo compound I. The material produced damage-resistant bar-code labels.

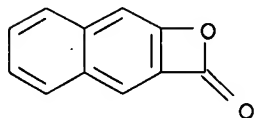
IT 86163-66-8, 2H-Naphth[2,3-b]oxet-2-one

RL: USES (Uses)

(heat-developable diazo printing material containing, for bar code labels)

RN 86163-66-8 HCAPLUS

CN 2H-Naphth[2,3-b]oxet-2-one (CA INDEX NAME)



L11 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1988:21622 HCAPLUS

DOCUMENT NUMBER: 108:21622

TITLE: Benzothiet-2-ones: synthesis, reactions, and comparison with benzoxet-2-ones and benzazetin-2-ones  
 AUTHOR(S): Wentrup, Curt; Bender, Harald; Gross, Gerhard  
 CORPORATE SOURCE: Dep. Chem., Univ. Queensland, St. Lucia, 4067, Australia

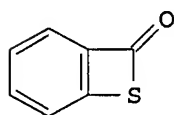
SOURCE: Journal of Organic Chemistry (1987), 52(17), 3838-47  
 CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

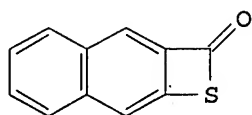
LANGUAGE: English

OTHER SOURCE(S): CASREACT 108:21622

GI



I



II

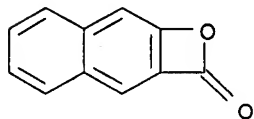
AB A number of title compds., e.g., I and II, were prepared or generated and then trapped via oligomerization, addition reaction with MeOH, or cycloaddn. reaction with DCC.

IT 86163-66-8P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (formation and addition reaction of, with methanol)

RN 86163-66-8 HCAPLUS

CN 2H-Naphth[2,3-b]oxet-2-one (CA INDEX NAME)



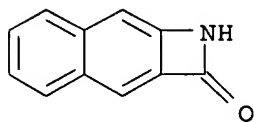
IT 86163-67-9P

RL: PREP (Preparation)

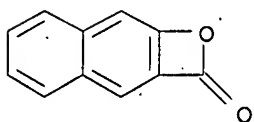
(formation and addition reaction with methanol)

RN 86163-67-9 HCAPLUS

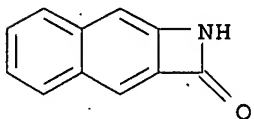
CN Naphth[2,3-b]azet-2(1H)-one (9CI) (CA INDEX NAME)



L11 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1983:470489 HCAPLUS  
 DOCUMENT NUMBER: 99:70489  
 TITLE: Thietones, oxetones and azetones  
 AUTHOR(S): Wentrup, Curt; Gross, Gerhard  
 CORPORATE SOURCE: Fachbereich Chem., Univ. Marburg, Marburg, D-3550, Fed. Rep. Ger.  
 SOURCE: Angewandte Chemie (1983), 95(7), 552  
 CODEN: ANCEAD; ISSN: 0044-8249  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 AB Naphtho[2,3-b]thiet-2-one (I) was prepared in 25% yield by flash vacuum pyrolysis of 3-mercapto-2-naphthoic acid. Methanolysis of I gave Me 3-mercapto-2-naphthoate and pyrolysis gave 2-thiocarbonyl-2H-indene. Naphtho[2,1-b]thiet-2-one was obtained quant. by pyrolysis of 1,2-dihydronaphtho[2,1-b]thiophene-1,2-dione. Naphtho[2,3-b]oxet-2-one was prepared by pyrolysis of 3-acetoxy-2-naphthoic acid or 3-hydroxy-2-naphthoyl chloride. Naphth[2,3-b]azet-2(1H)-one, azeto[3,2-b]pyridin-2(1H)-one, and azeto[2,3-c]pyridin-2(1H)-one were obtained from the corresponding aminocarboxylic acids.  
 IT 86163-66-8P 86163-67-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 86163-66-8 HCAPLUS  
 CN 2H-Naphth[2,3-b]oxet-2-one (CA INDEX NAME)



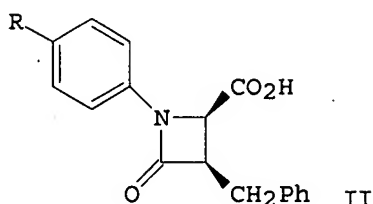
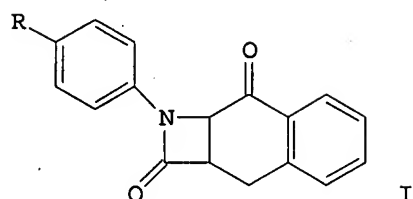
RN 86163-67-9 HCAPLUS  
 CN Naphth[2,3-b]azet-2(1H)-one (9CI) (CA INDEX NAME)



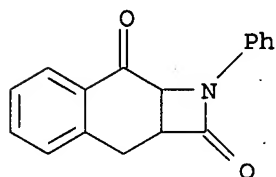
L11 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1977:484740 HCAPLUS  
 DOCUMENT NUMBER: 87:84740  
 TITLE: Synthesis of 2-aryl-6,7-benzo-2-azabicyclo[4.2.0]octan-3,8-dione: a new heterocyclic system  
 AUTHOR(S): Chatterjee, B. G.; Sahu, D. P.  
 CORPORATE SOURCE: Dep. Chem., Indian Inst. Technol., Kharagpur, India

10523489.trn

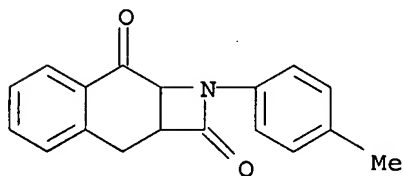
SOURCE: Tetrahedron Letters (1977), (13), 1129-30  
CODEN: TELEAY; ISSN: 0040-4039  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 87:84740  
GI



AB The azetidinones I (R = H, Me) were prepared from 4-RC<sub>6</sub>H<sub>4</sub>NHCH(CO<sub>2</sub>Et)<sub>2</sub> in 6 steps via the  $\beta$ -lactam acids II.  
IT 63755-28-2P 63755-29-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 63755-28-2 HCAPLUS  
CN Naphth[2,3-b]azete-2,8-dione, 1,2a,3,8a-tetrahydro-1-phenyl- (9CI) (CA INDEX NAME)



RN 63755-29-3 HCAPLUS  
CN Naphth[2,3-b]azete-2,8-dione, 1,2a,3,8a-tetrahydro-1-(4-methylphenyl)- (9CI) (CA INDEX NAME)



L11 ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1975:155988 HCAPLUS  
DOCUMENT NUMBER: 82:155988  
TITLE: Benzazets (1-azabenzocyclabutenes)  
AUTHOR(S): Adger, Brian M.; Rees, Charles W.; Storr, Richard C.  
CORPORATE SOURCE: Robert Robinson Lab., Univ. Liverpool, Liverpool, UK  
SOURCE: Journal of the Chemical Society, Perkin Transactions  
1: Organic and Bio-Organic Chemistry (1972-1999)

(1975), (1), 45-52  
CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 82:155988

GI For diagram(s), see printed CA Issue.

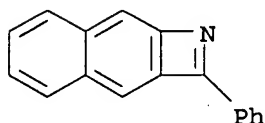
AB Pyrolysis of 4-phenyl-1,2,3-triazine at 420° gave 2-phenylbenzazete (I) which dimerized above -40°. I underwent cycloaddn. with conjugated dienes. E.g., I with 1,3-diphenylisobenzofuran gave II. Adducts of I with tetraphenylcyclopentadienone and dipyridyltetrazine spontaneously lose CO and N to give benzazocine III and benzotriazocine IV resp.; I with H<sup>+</sup> and PhNHNH<sub>2</sub> gave 2-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>COPh and its phenylhydrazone resp. 6-Chloro-4-phenyl- and 4-(p-methoxyphenyl)-1,2,3-benzotriazine and 4-phenylnaphtho[2,3-d][1,2,3]triazine on pyrolysis gave the corresponding benzazetes. Pyrolysis of 4-phenyl-1,2,3-benzotriazine 3-oxide gave 3-phenyl-2,1-benzisoxazole and acridone via 2-phenylbenzazete N-oxide.

IT 39779-03-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reaction of)

RN 39779-03-8 HCAPLUS

CN Naphth[2,3-b]azete, 2-phenyl- (9CI) (CA INDEX NAME)



IT 54853-42-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

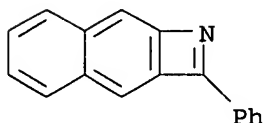
RN 54853-42-8 HCAPLUS

CN Naphth[2,3-b]azete, 2-phenyl-, dimer (9CI) (CA INDEX NAME)

CM 1

CRN 39779-03-8

CMF C17 H11 N



L11 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1973:147697 HCAPLUS

DOCUMENT NUMBER: 78:147697

TITLE: Formation of fused azetinones by photolysis and pyrolysis of triazinones. N-Aminonaphth[2,3-b]azet-2(1H)-one and N-1-adamantylbenzazet-2(1H)-one

AUTHOR(S): Bashir, Naz; Gilchrist, Thomas L.

CORPORATE SOURCE: Chem. Dep., Univ. Leicester, Leicester, UK

SOURCE: Journal of the Chemical Society, Perkin Transactions

1: Organic and Bio-Organic Chemistry (1972-1999)  
 (1973), No. 8, 868-72  
 CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE:

Journal

LANGUAGE:

English

GI For diagram(s), see printed CA Issue.

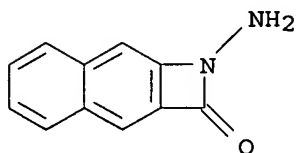
AB Irradiation of 3-aminonaphtho[2,3-d]-v-triazin-4(3H)-one gave N-amino-naphth[2,3-b]azet-2(1H)-one, which on heating or with AcOH gave benz[f]-indazol-3(2H)-one. Irradiation or pyrolysis of 3-amino-1,2,3-benzotriazin-4(3H)-one (I, R = NH<sub>2</sub>) gave 3-indazolinone. Pyrolysis of I (R = 1-adamantyl) gave N-(1-adamantyl)benzazet-2(1H) one (II, R = 1-adamantyl), adamantyl isocyanate, and biphenylene.

IT 41225-83-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 41225-83-6 HCAPLUS

CN Naphth[2,3-b]azet-2(1H)-one, 1-amino- (9CI) (CA INDEX NAME)



L11 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1973:84138 HCAPLUS

DOCUMENT NUMBER: 78:84138

TITLE: 2-phenylbenzazete, an azacyclobutadiene

AUTHOR(S): Adger, B. M.; Keating, M.; Rees, C. W.; Storr, R. C.

CORPORATE SOURCE: Robert Robinson Lab., Univ. Liverp., Liverpool, UK

SOURCE: Journal of the Chemical Society, Chemical

Communications (1973), (1), 19-20

CODEN: JCCCAT; ISSN: 0022-4936

DOCUMENT TYPE:

Journal

LANGUAGE:

English

GI For diagram(s), see printed CA Issue.

AB Vapor-phase flash pyrolysis of 4-phenyl-1,2,3-benzotriazine (I) at 0.03 torr >500° gave 40% biphenylene, but at 420-50° gave a mixture which was collected at -80° and contained .apprx.60% of the red title compound (II), .apprx.20% 9-phenylacridine (III) and .apprx.5% I. On warming to room temperature, II gave 50% of a dimer which was converted thermally or with refluxing EtOH-HCl to III. Monomeric II was intercepted when nucleophiles or conjugated dienes were injected onto the cold pyrolyzate at or below -40°. Thus, addition of dilute aqueous H<sub>2</sub>SO<sub>4</sub> in THF gave 50% o-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>Bz, and cycloaddn. of 1,3-diphenylisobenzofuran gave 55% of the adduct (IV). Pyrolysis of 4-phenyl-1,2,3-naphtho[2,3-d]triazine at 470° and 0.03 torr gave the more stable 2-phenylnaphth[2,3-b]azete.

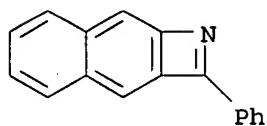
IT 39779-03-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

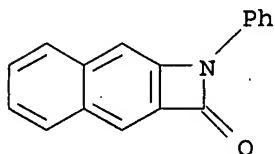
RN 39779-03-8 HCAPLUS

CN Naphth[2,3-b]azete, 2-phenyl- (9CI) (CA INDEX NAME)





L11 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1970:78136 HCAPLUS  
 DOCUMENT NUMBER: 72:78136  
 TITLE: Skeletal rearrangement by electron bombardment. III. Benzotriazinones and 1,3-diphenyltriazenes  
 AUTHOR(S): Wuensche, Christian; Ege, G.; Beisiegel, E.; Pasedach, F.  
 CORPORATE SOURCE: Org.-Chem. Inst., Univ. Heidelberg, Heidelberg, Fed. Rep. Ger.  
 SOURCE: Tetrahedron (1969), 25(24), 5869-77  
 CODEN: TETRAB; ISSN: 0040-4020  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 GI For diagram(s), see printed CA Issue.  
 AB Appearance potential measurements excluded a 4-membered ring structure of the (P-N2)+-ion in 3-phenylnaphthotriazinone. The fragmentation of some 3-phenyl-benzotriazinones, such as I, and 1,3-diphenyltriazenes was studied by high resolution measurements and 15N-labeling technique. ortho-Substituted methylbenzoates eliminate methanol in 6- and 7-membered ring transition states, but not in 8-membered transition states.  
 IT 19275-01-5  
 RL: PRP (Properties)  
 (mass spectrum of)  
 RN 19275-01-5 HCAPLUS  
 CN Naphth[2,3-b]azet-2(1H)-one, 1-phenyl- (8CI) (CA INDEX NAME)



L11 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1969:11650 HCAPLUS  
 DOCUMENT NUMBER: 70:11650  
 TITLE: Reaction of benzoyl and trichloroacetyl isocyanates with p-benzoquinone and  $\alpha$ -naphthoquinone  
 AUTHOR(S): Arbuzov, B. A.; Zbova, N. N.; Babasina, R. N.  
 CORPORATE SOURCE: Kazan. Gos. Univ. im. Ul'yanova-Lenina, Kazan, USSR  
 SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1968), (9), 2137-9  
 CODEN: IASKA6; ISSN: 0002-3353  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 OTHER SOURCE(S): CASREACT 70:11650  
 GI For diagram(s), see printed CA Issue.  
 AB Heating 4.84 g. BzNCO with 3.55 g. p-benzoquinone in Et2O 7 hrs. at

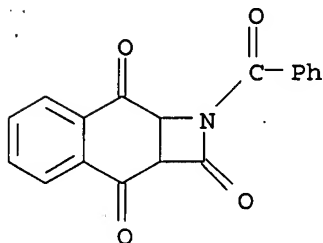
70-80° gave on cooling 45.6% I, m. 194-5°. Similarly Cl<sub>3</sub>CCONCO gave 43% Ia, m. 160-1°. BzNCO and 1,4-naphthoquinone gave 40.5% II, m. 226.5°. I treated with 30% H<sub>2</sub>O<sub>2</sub> in Me<sub>2</sub>CO-aqueous Na<sub>2</sub>CO<sub>3</sub> gave 83% epoxide, m. 216°. Hydrolysis of I in 6N NaOH gave 5-amino-2-cyclohexene-1,4-dion-6-oic acid, m. 173-5°. Similarly II gave 2-amino-1,4-dioxotetrahydronaphthalene-3-carboxylic acid, m. 198-200°. Heating II with alc. KOH 45 min. at 45° gave α-naphthoquinone-2-carboxylic acid, m. 178°. Ia heated briefly with HCl in aqueous Me<sub>2</sub>CO then kept at room temperature gave 5-hydroxy-2-cyclohexene-1,4-dion-6-oic acid, m. 139-40°. Thus BzNCO reacts with the quinones in 1,2-cycloaddn. mode while Cl<sub>3</sub>CCONCO reacts by a form of Diels-Alder reaction.

IT 20962-80-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 20962-80-5 HCAPLUS

CN Naphth[2,3-b]azete-2,3,8(1H)-trione, 1-benzoyl-2a,8a-dihydro- (8CI) (CA INDEX NAME)



L11 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1968:402762 HCAPLUS

DOCUMENT NUMBER: 69:2762

TITLE: N-Phenyl-naphtho[2,3-b]azetinone

AUTHOR(S): Ege, G.; Beisiegel, E.

CORPORATE SOURCE: Univ. Heidelberg, Heidelberg, Fed. Rep. Ger.

SOURCE: Angewandte Chemie, International Edition in English  
(1968), 7(4), 303-4

CODEN: ACIEAY; ISSN: 0570-0833

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

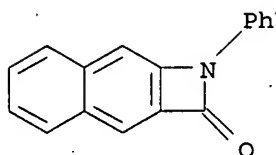
AB A mixture of the title ketone (I) and a small amount of benzo[d]acridone (II) is prepared by the irradiation of 3-phenyl-3,4-dihydronaphtho[2,3-d]-1,2,3-triazin-4-one (III). I is treated with MeOH and morpholine to give 3,2-PhNHC<sub>10</sub>H<sub>6</sub>CO<sub>2</sub>Me and 3-(phenylamino)-2-naphthoic acid morphilide.

IT 19275-01-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 19275-01-5 HCAPLUS

CN Naphth[2,3-b]azet-2(1H)-one, 1-phenyl- (8CI) (CA INDEX NAME)



L11 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1943:23133 HCAPLUS

DOCUMENT NUMBER: 37:23133

ORIGINAL REFERENCE NO.: 37:3744c-f

TITLE: Action of thionyl chloride on 2,3-hydroxynaphthoic acid

AUTHOR(S): Airan, J. W.; Shah, S. V.

SOURCE: J. Indian Chem. Soc. (1942), 19, 333-4

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

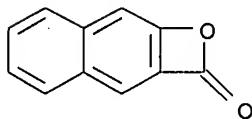
AB cf. C. A. 37, 632.7. Kostanecki (Ber. 25B, 1642 (1892)) distilled 2,3-hydroxynaphthoic acid (I) with Ac<sub>2</sub>O and obtained  $\gamma$ -dinaphthoxanthone. By the action of SOCl<sub>2</sub> on I, A. and S. obtained a compound (II) which they consider to be a lactone. SOCl<sub>2</sub> (30 cc.) was added in 5-cc. portions during 20 min. to 5 g. I (heated in an oil bath at 110°); the dry residue was extracted with CHCl<sub>3</sub> and ether was added to the extract to give a yellow solid (II), which, after purification with ether and CCl<sub>4</sub>, m. 240° (yield 50%).

IT 86163-66-8P, 2-Naphthoic acid, 3-hydroxy-, lactone

RL: PREP (Preparation)  
(preparation of)

RN 86163-66-8 HCAPLUS

CN 2H-Naphth[2,3-b]oxet-2-one (CA INDEX NAME)



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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

76.38

767.24

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

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